

## ABSTRACT

### CONTROLLING BIREFRINGENCE IN AN OPTICAL WAVEGUIDE AND IN AN ARRAYED WAVEGUIDE GRATING

A method of controlling birefringence in a rib waveguide structure manufactured in silicon, the rib waveguide structure comprising an elongated rib element having an upper face and two side faces, the method comprising forming a layer of thermal oxide to a predetermined thickness on said upper face and side faces of at least a portion of said rib waveguide structure.